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EXAMINER
ALPERT, JAMES M

ART UNIT	PAPER NUMBER
3624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

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Office Action Summary	Application No. 09/664,403	Applicant(s) CORNELL, ROSS H.
	Examiner James Alpert	Art Unit 3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final. ＼

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-10,27-70* is/are pending in the application.

    4a) Of the above claim(s) *4,31 and 49-70* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-10,27-30, and 45-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group 1, encompassing Claims 7-0, 27-30, and 45-48 in the reply filed on 12/15/2004, is acknowledged. The traversal is on the grounds that the burden to search and examine the claims is not serious. This is not found persuasive because each group of independent claims contains elements not found in the others, making each claim distinct from the other. Since Applicant does not challenge the independence of each group of claims, in order to anticipate all of Applicant's claims, the examiner would need to apply different references for each proposed invention. This would place a serious burden on the examiner in searching; hence the election requirement is still deemed proper, and is therefore made FINAL.

Claim Rejections - 35 USC § 101

35 U.S.C. §101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 27-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a non-statutory subject matter. Specifically the method claims as presented do not claim a technological basis in the pre-amble and the body of the claim. Without a technological basis, the claims may be interpreted, in an alternative, as involving no more than a manipulation of an abstract idea, and are therefore non-statutory under 35 U.S.C. 101. In contrast, for example, a method claim that includes in the body of the claim a structural / functional interrelationship which can only be computer implemented is considered to have a technological basis [See Ex parte Bowman, 61 USPQ2d 1669,

1671 (Bd. Pat. App. & Inter. 2001) - used only for content and reasoning since not precedential]. Claims 27-30 relate to a method of adding valued to mortgage-backed securities. However, the preamble and the body of the claims do not indicate that the claims are within the technological arts. In order to over come the 101 rejections above, a possible preamblie might be:

A <u>computer implemented</u> method for ---, or something similar.

Also, in the body of the claim include some structural / functional interrelationship which can only be computer implemented.

Claim Rejections - 35 USC § 101

Claims 7-10 and 45-48 are rejected as non-statutory because the sole apparatus limitations are recitations to "modules", which in an alternative interpretation may be considered non-statutory subject matter per se. The accepted meaning of "module" is software and/or hardware. Since the description in applicant's specification does not provide meets and bounds for "module", there may be recited solely software which is not patentable subject matter per se.

Claims, which are broad enough to read on statutory subject matter and on nonstatutory subject matter, are considered nonstatutory [see <u>In re Lintner</u>, 458 F.2d 1013, 1015, 173 USPQ 560, 562 (CCPA 1972)].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 7-10, 27-30, and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frankel, U.S. Patent #6070151 in view of Wheeler, Evaluating Mortgage-Backed Securities with Total Rate of Return Simulation, Bank Accounting & Finance.

With regard to Claims 7 and 45, Frankel teaches a system and data processing system comprising:

a risk analysis and planning module that:

> analyzes risk elements of mortgage pool components, (Figure 3, Items 302-308)
>
> develop plans for structuring securities based on selected components, and (Figure 3, Item 310)
>
> ensures each plan overcomes an artificial leverage limitation imposed by mortgage security regulatory structuring constraints;
> (Col. 2, line 40 – Col. 3, line 21; Col. 3 line 65 – Col. 4 line 47)

Frankel does not specifically teach of a risk analysis and planning module that analyzes risk elements of interest-rate derivative components, however, Wheeler does disclose this limitation in his article at (Page 3, Paragraphs 1-6) where he discusses options risk. It would have been obvious at the time Applicant's invention was made to combine the teachings of Frankel, related to the analysis of risk in mortgage-pool securities with the teachings of Wheeler, related to an analysis of interest-rate derivatives. The motivation for such a combination is as described in Wheeler at (Page 7, Paragraph 9) pointing out the value in making a total rate of return analysis. Frankel also suggest analyzing both components at (Col. 2 lines 40-50).

Frankel teaches the following limitation as well:

a deal structure module that validates a securities structuring plan and initializes files for the securities to be issued under each validated plan; and
(Figures 6-7; Col. 3 line 65 – Col. 4 line 16)

Frankel does not specifically teach the following limitation:

an administration module for administering the securities issued under the plan validated and initialized by the deal structure module.

However, existing securities have long been administered electronically, with logistical details handled easily. Thus an administrative module as described by Applicant would be considered old and well known in the art. As such, it would have been obvious at the time Applicant's invention was made to combine the teaching of Frankel, related to establishing a new security, to include a continued administration of the security. The motivation for such a combination is to make sure the security remains viable, so as to encourage capitalization in the security.

With regard to Claims 8 and 46, Frankel teaches a system and data processing system wherein:

the risk analysis and planning module comprises an asset pool prepayment model that projects cash flows of a mortgage asset account based on prepayment rate parameters and asset type data provided as input from a user. (Col. 6, lines 10-18)

With regard to Claims 9 and 47, Frankel teaches a system and data processing system wherein:

the risk analysis and planning module further comprises a pool planning and stress process module that processes projected cash flows from the asset pool prepayment model and determines whether the projected cash flows are sufficient to meet predetermined payment obligations. (Col. 6, lines 20-32)

With regard to Claims 10 and 48, Frankel teaches a system and data

processing system wherein:

the risk analysis and planning module further comprises a class structuring process
module that evaluates derivatives for a proposed plan based on data from the pool
planning and stress process module and a derivatives model.
(Figure 5; Col. 10, line 51 – Col. 11, line 15)

With regard to Claim 27, Frankel teaches a method comprising:

identifying one or more pools of mortgage securities;
(Col. 6, lines 1 –10)

Frankel does not specifically teach the following limitation:

identifying one or more pools of interest-rate derivatives,

However, Wheeler does disclose this limitation in his article at (Page 3,

Paragraphs 1-6) where he discusses options risk. It would have been obvious at the

time Applicant's invention was made to combine the teachings of Frankel, related to the

identifying mortgage-pool securities with the teachings of Wheeler, related to identifying

pools of interest-rate derivatives. The motivation for such a combination is as described

in Wheeler at (Page 7, Paragraph 9) pointing out the value in making a total rate of

return analysis. Frankel also suggest analyzing both components at (Col. 2 lines 40-50).

Frankel teaches the remaining limitations comprising:

analyzing risk elements associated with cash flows coming from the one or more pools
of mortgage securities and the one or more pools of interest-rate derivatives;
(Figure 3, Items 302-308)

strategically allocating cash flows from the one or more pools of mortgage securities
and cash flows from the one or more pools of interest-rate derivatives to create classes
of investment securities which define a new set of investment securities that overcome
an artificial leverage limitation in the mortgage securities, at least one class combining
cash flows from the one or more pools of interest-rate derivatives and cash flows from
the one or more pools of mortgage securities; and
(Col. 2, line 40 – Col. 3, line 21; Col. 3 line 65 – Col. 4 line 47)

issuing the new set of investment securities.
(Col. 21, lines 42-47)

With regard to Claim 28, Frankel teaches a method wherein:

one or more pools of mortgage securities have floating rate (FLT) and inverse floating
rate (INV) classes and the FLT and INV classes are exchanged for cash flows from a
derivative contract. (Col. 11, lines 1-29)

With regard to Claim 29, Frankel teaches a method wherein:

the derivative contract comprises an exchange of fixed rate cash flows from the
mortgage securities for variable rate cash flows from the derivative contract.
(Col. 4 lines 27-36; Col. 11, lines 1-29)

With regard to Claim 30, Frankel teaches a method wherein:

cash flows move both to and from the FLT and INV classes.
(Col. 11, lines 1-29)

Conclusion

The following prior art, made of record but not relied upon, is considered

pertinent to applicant's disclosure:

a)   Gould et al., U.S. Patent #5966700, October 12, 1999, Management System for
        Risk Sharing of Mortgage Pools.

b)   Levine et al., U.S. Patent Application Publication #20030074306, April 17, 2003,
        Method and System for Managing a Mortgage-Backed Securities Index.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to James Alpert whose telephone number is (703) 305-

4001. The examiner can normally be reached on M-F 9:30-6:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (703) 308-1065. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Alpert
April 4, 2005

ALAIN L. BASHORE
PRIMARY EXAMINER